

Work Order ID 155194

Tuesday, January 10, 2017 9:24:50 AM

155194

Page 1

Item ID: D4777-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Rod End Bearing
Start Date: 1/12/2017 Start Qty: 10.00 ***10*** Cust Item ID:
Required Date: 1/25/2017 Req'd Qty: 10.00 ***10*** Customer:
Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **JAN 10 2017** Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4777	A								
100	PURCHASING	0.00							DAS 13 9-89
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: 34888								
	Purchase Part Number: 59915K274 Supplier: Mc Master Carr or CTG Certificate of conformity is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.03							
Packaging	Ensure certificate of conformity is attached								
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control									DAS 38 9-89

10 JAN 10 2017**10x SP17-01-13****10** JAN 16 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

Work Order ID 155194

Tuesday, January 10, 2017 9:24:50 AM

155194

Page 2

Item ID: D4777-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Rod End Bearing

Start Date: 1/12/2017 Start Qty: 10.00

10

Cust Item ID:

Required Date: 1/25/2017 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

Identify as per dwg & Stock Location: *Stlas*

0.00

130

Packaging

Memo

0.02

Packaging

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.17

Quality Control

*10**DAS*
6
9-82

JAN 17 2017

*17/01/18**MF*
17-1-17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, January 10, 2017 9:24:53 AM

Page 1

Work Order ID: 155194

155194

Parent Item: D4777-1

D4777-1

Parent Item Name: Rod End Bearing

Start Date: 1/12/2017

Required Date: 1/25/2017

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A 12.10.03 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
59915K274		Purchased	No			110	Each	0.0000	1	10			
59915K274									**				
Rod End Bearing													

10x SP H-A-13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

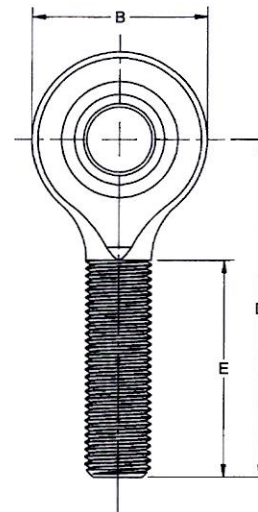
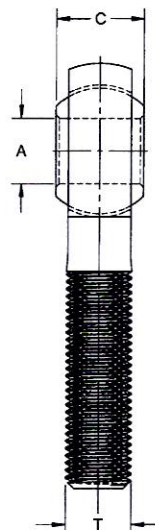
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

SPECIFICATION CONTROL DRAWING

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 155194 MCG
1701-10



ROD END BEARING

DART P/N	HOUSING MATERIAL	A	B	C	D	E	T (THREAD SIZE)	SUGGESTED SUPPLIER	SUGGESTED SUPPLIER P/N
D4777-1	STAINLESS STEEL	Ø 0.38	1.00	0.500	1.94	1.25	3/8-24 (RIGHT HAND)	MC MASTER CARR	59915K274

RELEASED
2013-08-14

A	NEW ISSUE	AJS	13.08.08
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	13.08.08		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D4777
TITLE ROD END BEARING
REV. A
SHEET 1 OF 1
SCALE NTS

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34888**

Purchase Order Date 1/10/2017

PO Print Date 1/10/2017

Page Number 1 of 7

Order From :

VU-MCM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

JAN 10 2017

MCMaster-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US



Contact Name

Vendor Phone 330 995 5500

Ship To Contact

Ship To Phone

Ship Via: Purolator ground ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 10

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
4	59915K274 AS PER DWG D4777 REV. A B155194	Rod End Bearing ✓	1/12/2017 Yes 1/12/2017		10.00 Each	\$19.05	\$190.50
Line Total:							\$190.50
5	90145A630 AS PER DWG D3954 REV. D B155190	Pin	1/12/2017 Yes 1/12/2017		5.00 Each	\$2.65	\$13.26
Line Total:							\$13.26
6	90289A352 AS PER DWG D3585 REV. A B155189	SET SCREW	1/12/2017 Yes 1/12/2017		10.00 Each	\$0.91	\$9.07

Note:

1/10/2017



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO34888

Order Placed By
Chantal Lavoie

McMaster-Carr Number
5447321-02

Page 1 of 2

01/10/2017

Line	Product	Ordered	Shipped
1	59915K274 PTFE-Lined Stainless Steel Ball Joint Rod End 3/8"-24 RH Male Shank, 3/8" Ball ID, 1-1/4" Long Thread Your Part Number: YOUR LINE 4	10 Each	10
2	90145A630 18-8 Stainless Steel Dowel Pin 3/8" Diameter, 1-3/4" Length, Packs of 5 Your Part Number: YOUR LINE 5	1 Pack	1
3	90289A352 Alloy Steel Knurl-Grip Cup Point Set Screw 1/4"-28 Thread, 5/16" Long, Packs of 50, Shipping 1 Pack of 50 To Meet Your Need For 10 Ea Your Part Number: YOUR LINE 6	1 Pack	1
4	9273K43 General Purpose Nylon Hook and Loop 2" Width x 50' Length, Adhesive Back, Black Your Part Number: YOUR LINE 7	1 Each	1
5	4066A46 Hole Saw 1-1/2" Cutting Depth, 2-7/8" Diameter Your Part Number: YOUR LINE 8, FOR SYLVIE	1 Each	1
6	4066A79 Arbor with 3/8" Hex for 1-1/4" to 8" Hole Saw Your Part Number: YOUR LINE 9, FOR SYLVIE	1 Each	1
7	6309K34 Versa-Mount Vibration-Damping Mount 130 lb. Compression Capacity, 1.94" Overall Height Your Part Number: YOUR LINE 10, FOR DARYL	16 Each	16
9	5039A51 Quick-Grip Bar Clamp 6" Maximum Opening, 140 lb. Holding Capacity Your Part Number: YOUR LINE 12, FOR SYLVIE	4 Each	4
10	7579A42 6 oz. Empty Cartridge for Single-Component Dispensing Gun Your Part Number: YOUR LINE 13, FOR SYLVIE	12 Each	12
11	6830A13 Quick-Read Tape Measure 25 Feet Length Lacquer-Coated Steel Blade Your Part Number: YOUR LINE 14, FOR ERIC D	12 Each	12
12	5549A22 1/2" Square Drive Impact Socket 6-Point Standard, 3/4" Size, 1-1/2" Overall Length, Black Your Part Number: YOUR LINE 15, FOR ERIC L	1 Each	1
13	53525A41 3/4" Square Drive Hex-Bit Impact Socket Hex Bit, 1/2" Size, 3-15/16" Overall Length, Black Finish Your Part Number: YOUR LINE 16, FOR ERIC L	1 Each	1
14	45695K13 Easy-Clean Valve for Chemicals On/Off Function, 3/8 NPT Female Your Part Number: YOUR LINE 17, FOR ERIC L	1 Each	1
15	5225K722 Push-to-Connect Tube Fitting for Air Swivel 90 Degree Elbow for 6mm Tube OD x 1/8 NPT Male Your Part Number: YOUR LINE 18, FOR ERIC L	2 Each	2
16	3814A31 8-Segment Steel Breakaway Blade, Packs of 10 Your Part Number: YOUR LINE 19, FOR CHANTAL	10 Packs	10
17	7701K34 Button/Coin Cell Battery Lithium, Size CR2032 Your Part Number: YOUR LINE 20, FOR CHANTAL	24 Each	24
18	7604K83 Button/Coin Cell Battery Silver Oxide, Size SR44, 160 MA-Hrs. Capacity Your Part Number: YOUR LINE 21, FOR CHANTAL	24 Each	24

SP14-01-13

DAS
38
9-85

Packing List

200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO34888
Order Placed By
Chantal Lavoie
McMaster-Carr Number
5447321-02

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01/10/2017

Shipped separately from our Chicago warehouse on 01/10

19	8841A21	Multi-Diameter Step Drill Bit High-Speed Steel, 13 Sizes, 1/8"-1/2", 1/4" Shank Diameter, 1/8" Maximum Thickness	6 Each	6
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Expected to ship

8	8492A999	Press-Fit Drill Bushing with Head, 1/2" OD, 1/2" Length, 0.3160 ID	4 Each	4 Jan 16
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Notes about your shipment

The U.S. Department of Transportation regulates the shipping of lines 17 and 18. By purchasing from McMaster-Carr Supply Company, you agree not to transport or permit others to transport purchased items except in accordance with U.S. law and any other applicable laws.

SP 17-01-13